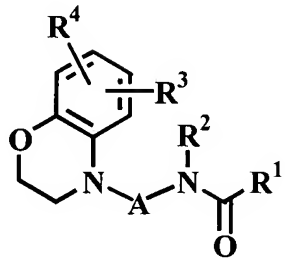
In the Claims

1. (Original) A benzomorpholine derivative or pharmaceutically acceptable salt thereof represented by formula I,



(I)

wherein

A is C_{2-4} alkylene, C_{2-4} alkenylene, or C_{2-4} alkynylene,

R^1 is:

(1) unsubstituted aryl or heteroaryl, or aryl or heteroaryl substituted with one or a plurality of substituents independently selected from the following group,

a) C_{1-5} alkyl, b) C_{1-5} alkoxy c) C_{3-8} cycloalkyl, d) C_{1-5} haloalkyl, e) phenyl, f) phenoxy, g) hydroxyl, h) C_{1-5} hydroxyalkyl, i) C_{1-5} haloalkyloxy, j) mercapto, k) C_{1-5} alkylthio, l) C_{1-5} haloalkylthio, m) halogen, n) cyano, o) nitro, p) amino, q) C_{1-5} alkylamino, r) C_{2-10} dialkylamino, s) acyl, t) carboxyl, u) C_{2-6} alkyloxycarbonyl, v) mesyl, w) trifluoromethanesulfonyl, and x) tosyl; or

(2) unsubstituted C_{1-5} alkyl, C_{3-8} cycloalkyl, C_{2-10} alkenyl, C_{4-10} cycloalkenyl, or C_{2-10} alkynyl, or C_{1-5} alkyl, C_{3-8} cycloalkyl, C_{2-10} alkenyl, C_{4-10} cycloalkenyl, or C_{2-10} alkynyl substituted with one or a plurality of substituents independently selected from the following group,

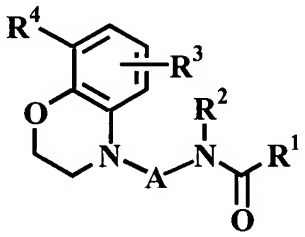
a) phenyl, b) hydroxyl, c) C_{1-5} alkyl, d) C_{3-8} cycloalkyl, e) C_{1-5} haloalkyl, and f) halogen;

R^2 is unsubstituted aryl or heteroaryl, or aryl or heteroaryl substituted with one or a plurality of substituents independently selected from the following group,

a) C_{1-5} alkyl, b) C_{1-5} alkoxy, c) C_{3-8} cycloalkyl, d) C_{1-5} haloalkyl, e) phenyl, f) phenoxy, g) hydroxyl, h) C_{1-5} hydroxyalkyl, i) C_{1-5} haloalkyloxy, j) mercapto, k) C_{1-5} alkylthio, l) C_{1-5} haloalkylthio, m) halogen, n) cyano, o) nitro, p) amino, q) C_{1-5} alkylamino, r) C_{2-10} dialkylamino, s) acyl, t) carboxyl, u) C_{2-6} alkyloxycarbonyl, v) mesyl, w) trifluoromethanesulfonyl, and x) tosyl;

R^3 is hydrogen, halogen, C_{1-5} alkyl, or C_{1-5} alkoxy; R^4 is $-X-(CH_2)n-COOR^5$, and X is –O–, –S–, or $-CH_2-$; R^5 is hydrogen or C_{1-5} alkyl; and n is an integer that is 1, 2, or 3.

2. (Original) The benzomorpholine derivative or pharmaceutically acceptable salt thereof according to claim 1 represented by general formula (II),



(II)

wherein A, R^1, R^2, R^3, and R^4 are as defined in claim 1.

3. (Original) The benzomorpholine derivative or pharmaceutically acceptable salt thereof according to claim 1, wherein A is ethylene.

4. (Original) The benzomorpholine derivative or pharmaceutically acceptable salt thereof according to claim 1, wherein R^1 is unsubstituted aryl or heteroaryl, or aryl or heteroaryl substituted with one or a plurality of substituents which are as defined in claim 1.

5. (Original) The benzomorpholine derivative or pharmaceutically acceptable salt thereof according to claim 4, wherein R^1 is unsubstituted phenyl, furyl, thienyl, or pyridyl, or phenyl, furyl, thienyl, or pyridyl substituted with one or a plurality of substituents which are as defined in claim 1.

6. (Original) The benzomorpholine derivative or pharmaceutically acceptable salt thereof according to claim 5, wherein R^1 is unsubstituted phenyl, furyl, thienyl, or pyridyl, or phenyl, furyl, thienyl, or pyridyl substituted with one or a plurality of substituents independently selected from the following group,

a) C_{1-5} alkyl, b) C_{1-5} alkoxy, c) C_{1-5} haloalkyl, d) hydroxyl, e) C_{1-5} haloalkyloxy, f) C_{1-5} alkylthio, g) C_{1-5} haloalkylthio, h) halogen, i) cyano, j) C_{2-10} dialkylamino, k) acetyl, l) C_{2-6} alkyloxycarbonyl, m) mesyl, n) trifluoromethanesulfonyl, and o) tosyl.

7. (Original) The benzomorpholine derivative or pharmaceutically acceptable salt thereof according to claim 6, wherein R^1 is unsubstituted phenyl, furyl, thienyl, or pyridyl or phenyl, furyl, thienyl, or pyridyl substituted with one or a plurality of substituents independently selected from the following group,

a) C_{1-5} alkyl, b) C_{1-5} alkoxy, c) C_{1-5} haloalkyl, d) hydroxyl, h) halogen, and i) cyano.

8. (Original) The benzomorpholine derivative or pharmaceutically acceptable salt thereof according to claim 1, wherein R^2 is unsubstituted phenyl or pyridyl, or phenyl or pyridyl substituted with one or a plurality of substituents which are as defined in claim 1.

9. (Original) The benzomorpholine derivative or pharmaceutically acceptable salt thereof according to claim 8, wherein R^2 is unsubstituted phenyl or pyridyl, or phenyl or pyridyl substituted with one or a plurality of substituents independently selected from the following group,

a) C_{1-5} alkyl, b) C_{1-5} alkoxy, c) C_{1-5} haloalkyl, d) hydroxyl, e) C_{1-5} haloalkyloxy, f) C_{1-5} alkylthio, g) C_{1-5} haloalkylthio, h) halogen, i) cyano, j) amino, k) C_{2-10} dialkylamino, l) acyl, m) C_{2-6} alkyloxycarbonyl, n) mesyl, o) trifluoromethanesulfonyl, and p) tosyl.

10. (Original) The benzomorpholine derivative or pharmaceutically acceptable salt thereof according to claim 9, wherein R^2 is unsubstituted phenyl or pyridyl, or phenyl or pyridyl substituted with one or a plurality of substituents independently selected from the following group,

a) C_{1-5} alkyl, b) C_{1-5} alkoxy, c) C_{1-5} haloalkyl, d) C_{1-5} haloalkyloxy, e) C_{1-5} alkylthio, f) halogen, and g) C_{2-10} dialkylamino.

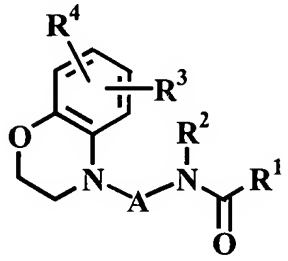
11. (Original) The benzomorpholine derivative or pharmaceutically acceptable salt thereof according to claim 1, wherein X is –O–.

12. – 16. (Cancelled)

17. (New) A pharmaceutical composition comprising:

a pharmaceutically acceptable carrier; and

a benzomorpholine derivative or pharmaceutically acceptable salt thereof represented by formula I,



(I)

wherein

A is C_{2-4} alkylene, C_{2-4} alkenylene, or C_{2-4} alkynylene,

R^1 is:

(1) unsubstituted aryl or heteroaryl, or aryl or heteroaryl substituted with one or a plurality of

substituents independently selected from the following group,

a) C_{1-5} alkyl, b) C_{1-5} alkoxy c) C_{3-8} cycloalkyl, d) C_{1-5} haloalkyl, e) phenyl, f) phenoxy, g) hydroxyl, h) C_{1-5} hydroxyalkyl, i) C_{1-5} haloalkyloxy, j) mercapto, k) C_{1-5} alkylthio, l) C_{1-5} haloalkylthio, m) halogen, n) cyano, o) nitro, p) amino, q) C_{1-5} alkylamino, r) C_{2-10} dialkylamino, s) acyl, t) carboxyl, u) C_{2-6} alkyloxycarbonyl, v) mesyl, w) trifluoromethanesulfonyl, and x) tosyl; or

(2) unsubstituted C_{1-5} alkyl, C_{3-8} cycloalkyl, C_{2-10} alkenyl, C_{4-10} cycloalkenyl, or C_{2-10} alkynyl, or C_{1-5} alkyl, C_{3-8} cycloalkyl, C_{2-10} alkenyl, C_{4-10} cycloalkenyl, or C_{2-10} alkynyl substituted with one or a plurality of substituents independently selected from the following group,

a) phenyl, b) hydroxyl, c) C_{1-5} alkyl, d) C_{3-8} cycloalkyl, e) C_{1-5} haloalkyl, and f) halogen;

R^2 is unsubstituted aryl or heteroaryl, or aryl or heteroaryl substituted with one or a plurality of substituents independently selected from the following group,

a) C_{1-5} alkyl, b) C_{1-5} alkoxy, c) C_{3-8} cycloalkyl, d) C_{1-5} haloalkyl, e) phenyl, f) phenoxy, g) hydroxyl, h) C_{1-5} hydroxyalkyl, i) C_{1-5} haloalkyloxy, j) mercapto, k) C_{1-5} alkylthio, l) C_{1-5} haloalkylthio, m) halogen, n) cyano, o) nitro, p) amino, q) C_{1-5} alkylamino, r) C_{2-10} dialkylamino, s) acyl, t) carboxyl, u) C_{2-6} alkyloxycarbonyl, v) mesyl, w) trifluoromethanesulfonyl, and x) tosyl;

R^3 is hydrogen, halogen, C_{1-5} alkyl, or C_{1-5} alkoxy; R^4 is $-X-(CH_2)n-COOR^5$, and X is –O–, –S–, or $-CH_2-$; R^5 is hydrogen or C_{1-5} alkyl; and n is an integer that is 1, 2, or 3.